Miquel B. Salmeron

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Education Ph.D. in Physics, Universidad Autonoma de Madrid, Spain, 1975
M.A. in Physics, Université Paul Sabatier, Toulouse, France, 1971
B.A. in Physics, University of Barcelona, Spain, 1967

Professional Experience

2006	Adjunct Professor, Materials Science and Engineering Dept. UCB.
2004-present	Director. Imaging and Manipulation Facility of the Molecular Foundry.
1990-present	Senior Scientist, Lawrence Berkeley National Laboratory.
2001	Sabbatical (3 months). Fritz-Haber Institute, Max-Planck Society, Berlin.
1991-94	Visiting Professor (1 month / year) at the University of Barcelona, Spain
1984-90	Divisional Fellow. Materials and Chemical Sciences Division. LBNL
1983	Visiting Scientist (4 months). Exxon Research Co. New Jersey
1981-84	Professor, Physics Dept. Universidad Autonoma de Madrid
1973-84	Senior Scientist. Spanish National Research Council (CSIC).
1972-73	Assistant Professor of Physics. Universidad Autonoma de Madrid

Honors

2004	Klaus Halbach Award for development of Innovative Instrumentation
2003	Fellow of the American Vacuum Society
2001	Outstanding Performance Award, LBNL
1997	Iberdrola Foundation Professor. Universidad Autonoma de Madrid, Spain
1996	Fellow of the American Physical Society
1996	Outstanding Research Award in Materials Chemistry. U.S. Department of Energy
1995	Outstanding Scientific Accomplishment Award in Materials Chemistry. U.S. Dept. of Energy
1995	Nicolas Cabrera Foundation Professor. Universidad Autonoma de Madrid, Spain
1994	Outstanding Performance Award, LBNL
1991	Certificate of Merit in Technology Transfer, LBNL
1990	Federal Laboratory Consortium Award for Technology Transfer Merit
1989	Outstanding Achievements in Technology Transfer, LBNL

Original Publications

350 Journal articles and book chapters
315 Invited talks, including 11 plenary and keynote lectures.

Patents Held

1. J. Hu, D.F. Ogletree, M. Salmeron and X.-D. Xiao, “Method for Imaging Liquid and Dielectric Materials with Scanning Polarization Force Microscopy.” U.S. Patent No. 5,880,360 (3/9/99)
2. I. Brown, R. MacGill, J. Galvin, D.F. Ogletree and M. Salmeron, “Miniature Pulsed Vacuum

Arc Plasma Gun and Apparatus for Thin-Film Fabrication." U.S. Patent No. 5,841,236 (11/24/98)

3. J. Hu, D.F. Ogletree, M. Salmeron and X.-D. Xiao, "Apparatus for Imaging Liquid and Dielectric Materials with Scanning Polarization Force Microscopy." U.S. Patent No. 5,744,704 (4/28/98)

PhD Thesis supervised: 20 students from various departments and Universities in the US and Europe

Research interests

Mechanical, physical and chemical properties of surfaces and interfaces. Manipulation of matter at the atomic scale. Atomistic studies of friction, adhesion and wear. Surface chemistry and catalysis. Properties of liquids at the nanoscale. Molecular films. Nanoclusters. Development of new techniques: Scanning Tunneling and Atomic Force Microscopies, Surface Forces Apparatus, Photoelectron Spectroscopy, x-ray absorption and emission spectroscopies.

Other Professional Activities

2004-present Member Steering Committee, *National Center of Electron Microscopy*
2004-present Member Scientific Advisory Board, *Advanced Light Source (Berkeley Synchrotron)*
2003 Member Editorial Board of *Surface Science*
2003- President of the Advisory Board, *"Institut Catala de Nanotecnologia", Barcelona, Spain.*
2001-03 Scientific Advisor, *Autonomous Government of Catalonia, Spain.*
2001 Chairman, International Review Committee for *FOM Grants, Holland.*
2001 International Conference on Scanning Tunneling Microscopy, Program Committee member
2000 Member, *Research Award Prizes Committee. Generalitat de Catalunya. Barcelona. Spain*
1999 Member, International Review Committee, *Austrian Science Fund*
1996 MRSEC Panel, *National Science Foundation, Washington, D.C.*
1994-present Member, Editorial Advisory Board, *Tribology Letters*

Member of the American Physical Society, American Chemical Society, American Vacuum Society, Materials Research Society.

Supervisory and Teaching Experience

Currently supervising 2 staff scientists, 2 technicians, and 6 postdoctoral scientists.

Teaching at UC Berkeley:

Introduction to Materials Chemistry (Chem-150). Chemistry and Mat. Science.
Electronic and Magnetic Properties of Materials (MSE-111).
Surface Science (Phys-250). Physics Department.

Teaching at University of Barcelona, Spain:
Surface Physics (Graduate level)

Teaching at University Autonoma de Madrid, Spain:
Surface Science (graduate level)
Solid State Physics (third-year Physics)
Physics Laboratory II (second-year Physics)
Electricity and Magnetism (second-year Physics)

General Physics (first-year Physics)